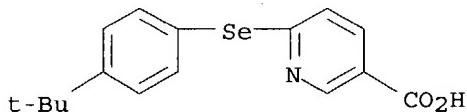


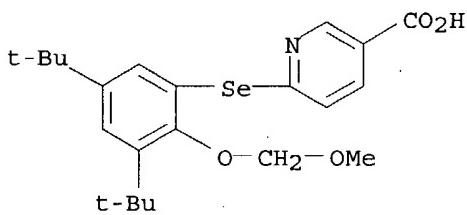
L13 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2000:338377 CAPLUS  
 DN 133:89593  
 TI Solution-Phase Synthesis of Diaryl Selenides Using Polymer-Supported Borohydride  
 AU Millois, Corinne; Diaz, Philippe  
 CS GALDERMA RD, Sophia-Antipolis, F06902, Fr.  
 SO Organic Letters (2000), 2(12), 1705-1708  
 CODEN: ORLEF7; ISSN: 1523-7060  
 PB American Chemical Society  
 DT Journal  
 LA English  
 OS CASREACT 133:89593  
 AB A new series of selenium-containing diaryl retinoids have been prepared by a  
 new

direct nickel(II)-catalyzed coupling of a diselenide with an iodoaryl in the presence of polymer-supported borohydride. Thus, (bpy)<sub>2</sub>NiBr<sub>2</sub>-catalyzed coupling reaction of bis(4-chlorophenyl) diselenide with Me 3-iodobenzoate in the presence of Aldrich 32,864-2 resin in THF/MeOH gave 84% 4-ClC<sub>6</sub>H<sub>4</sub>SeC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>Me-2.

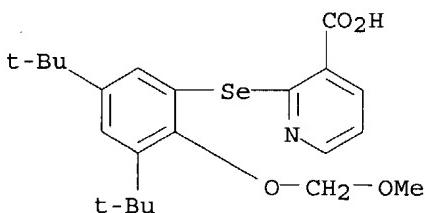
IT 252352-02-6P 252352-21-9P 252352-22-0P  
 282087-23-4P 282087-24-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 252352-02-6 CAPLUS  
 CN 3-Pyridinecarboxylic acid, 6-[[4-(1,1-dimethylethyl)phenyl]seleno]- (9CI)  
 (CA INDEX NAME)



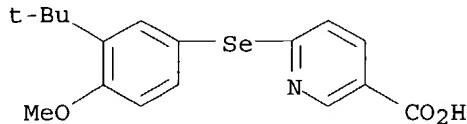
RN 252352-21-9 CAPLUS  
 CN 3-Pyridinecarboxylic acid, 6-[[3,5-bis(1,1-dimethylethyl)-2-(methoxymethoxy)phenyl]seleno]- (9CI) (CA INDEX NAME)



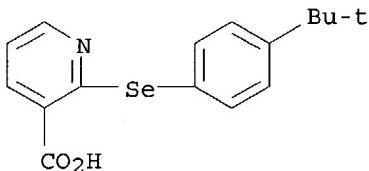
RN 252352-22-0 CAPLUS  
 CN 3-Pyridinecarboxylic acid, 2-[[3,5-bis(1,1-dimethylethyl)-2-(methoxymethoxy)phenyl]seleno]- (9CI) (CA INDEX NAME)



RN 282087-23-4 CAPLUS  
CN 3-Pyridinecarboxylic acid, 6-[[3-(1,1-dimethylethyl)-4-methoxyphenyl]seleno]- (9CI) (CA INDEX NAME)



RN 282087-24-5 CAPLUS  
CN 3-Pyridinecarboxylic acid, 2-[[4-(1,1-dimethylethyl)phenyl]seleno]- (9CI)  
(CA INDEX NAME)



RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

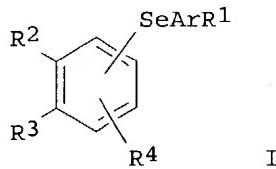
L13 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:811209 CAPLUS  
DN 132:35910  
TI Preparation of diaryl selenide compounds and their use in human or veterinary medicine and in cosmetics  
IN Bernardon, Jean-Michel; Diaz, Philippe  
PA Galderma Research & Development, S.N.C., Fr.  
SO PCT Int. Appl., 81 pp.  
CODEN: PIXXD2

DT Patent  
LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9965872	A1	19991223	WO 1999-FR1389	19990611
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
FR	2779720	A1	19991217	FR 1998-7439	19980612
FR	2779720	B1	20020816		
CA	2334843	AA	19991223	CA 1999-2334843	19990611
AU	9940491	A1	20000105	AU 1999-40491	19990611
AU	753187	B2	20021010		
EP	1086080	A1	20010328	EP 1999-923723	19990611
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
BR	9911833	A	20010925	BR 1999-11833	19990611
JP	2002518371	T2	20020625	JP 2000-554699	19990611
ZA	2000006518	A	20010730	ZA 2000-6518	20001110
NO	2000006337	A	20010212	NO 2000-6337	20001212

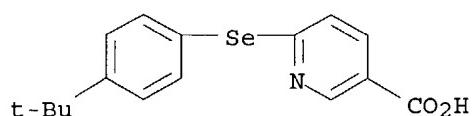
PRAI FR 1998-7439 A 19980612  
 WO 1999-FR1389 W 19990611  
 OS MARPAT 132:35910  
 GI



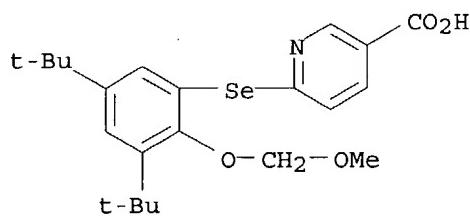
**AB** The invention concerns novel diaryl selenide compds. corresponding to I and their geometric and optical isomers and salts and the use thereof in pharmaceutical compns. in human or veterinary medicine (in the treatment of dermatol., rheumatic, cardiovascular and ophthalmol. pathologies in particular), or in cosmetic compns. In I, R1 = Me, CH<sub>2</sub>OR<sub>5</sub> (R<sub>5</sub> = H, lower alkyl, C(O)R<sub>10</sub> (R<sub>10</sub> = lower alkyl)), C(O)R<sub>6</sub> (R<sub>6</sub> = H, lower alkyl, OR<sub>12</sub> (R<sub>12</sub> = H, lower alkyl, aryl, aralkyl possibly substituted, monohydroxyalkyl, polyhydroxyalkyl), NR'R'' (R'/R'' = H, lower alkyl, aryl possibly substituted, amino acid fragment; R' and R'' together with N form a heterocycle)); Ar = R<sub>7</sub>-substituted benzene or pyridine diradical (R<sub>7</sub> = H, halogen, lower alkyl, nitro, OR<sub>13</sub> (R<sub>13</sub> = H, lower alkyl), polyether radical, NR<sub>14</sub>R<sub>15</sub> (R<sub>14</sub>/R<sub>15</sub> = H, lower alkyl)), diradicals of furan, thiophene or thiazole; R<sub>2</sub>/R<sub>3</sub> = H, tBu, 1-methylcyclohexyl, 1-adamantyl, OR<sub>8</sub> (R<sub>8</sub> = H, lower alkyl, aryl possibly substituted, aralkyl possibly substituted, monohydroxyalkyl, polyhydroxyalkyl, lower alkyl), polyether radical, where at least one of R<sub>2</sub> or R<sub>3</sub> = tBu, 1-methylcyclohexyl, 1-adamantyl; R<sub>2</sub> and R<sub>3</sub> may together with an adjacent aromatic ring form a saturated 5- or 6-membered ring possibly substituted by Me groups and/or possibly interrupted by O or S; R<sub>4</sub> = H, halogen, lower alkyl, OR<sub>9</sub> (R<sub>9</sub> = H, lower alkyl, aryl possibly substituted, aralkyl possibly substituted, monohydroxyalkyl, polyhydroxyalkyl, lower alkyl, (CH<sub>2</sub>)<sub>n</sub>CO<sub>2</sub>R<sub>16</sub> (R<sub>16</sub> = H, lower alkyl; n = 1-12), (CH<sub>2</sub>)<sub>n</sub>X (X = halogen)), polyether radical, C(O)R<sub>10</sub>. Although the method of preparation is not claimed, 70 example prepns. are included. In a typical preparation, a haloarene (e.g. 2-bromo-5,6,7,8-tetrahydro-3,5,5,8,8-pentamethylnaphthalene) is successively reacted with tBuLi in THF, Se, and NaOH in EtOH to give a diselenide, which is cleaved with NaBH<sub>4</sub> in EtOH to give the Na salt of an areneselenol, which is undergoes metathesis with IR<sub>1</sub> or BrR<sub>1</sub> (e.g. Et 4-iodobenzoate) in the presence of NiBr<sub>2</sub>py<sub>2</sub> in EtOH to give I (e.g. Et 4-(3,5,5,8,8-pentamethyl-5,6,7,8-tetrahydronaphthalen-2-ylselenenyl)benzoate).

**IT** 252352-02-6P, 6-(4-tert-Butylphenylselenenyl)nicotinic acid  
 252352-21-9P, 6-(3,5-Di-tert-butyl-2-methoxymethoxyphenylselenenyl)nicotinic acid 252352-22-0P, 2-(3,5-Di-tert-butyl-2-methoxymethoxyphenylselenenyl)nicotinic acid  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of diaryl selenide compds. and use in human or veterinary medicine and in cosmetics)

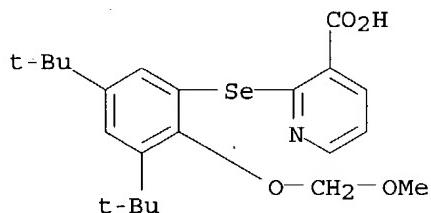
**RN** 252352-02-6 CAPLUS  
**CN** 3-Pyridinecarboxylic acid, 6-[[4-(1,1-dimethylethyl)phenyl]seleno]- (9CI)  
 (CA INDEX NAME)



RN 252352-21-9 CAPLUS  
CN 3-Pyridinecarboxylic acid, 6-[3,5-bis(1,1-dimethylethyl)-2-(methoxymethoxy)phenyl]seleno]- (9CI) (CA INDEX NAME)

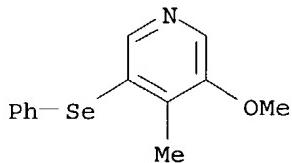


RN 252352-22-0 CAPLUS  
CN 3-Pyridinecarboxylic acid, 2-[3,5-bis(1,1-dimethylethyl)-2-(methoxymethoxy)phenyl]seleno]- (9CI) (CA INDEX NAME)

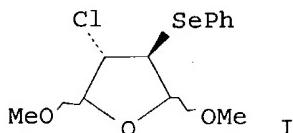


RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

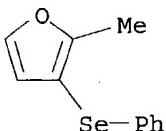
L13 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1981:480674 CAPLUS  
DN 95:80674  
TI Regioselective metalation of the 4-position of pyridine. New and convenient alkylation and acylation of 3-amino-5-methoxypyridine  
AU Tamura, Yasumitsu; Fujita, Masanobu; Chen, Ling-Ching; Inoue, Minako; Kita, Yasuyuki  
CS Fac. Pharm. Sci., Osaka Univ., Suita, Japan  
SO Journal of Organic Chemistry (1981), 46(17), 3564-7  
CODEN: JOCEAH; ISSN: 0022-3263  
DT Journal  
LA English  
OS CASREACT 95:80674  
AB The reaction of 3-methoxy-5-pivaloylaminopyridine with BuLi at low temperature in THF gives the 4-lithiopyridines, which react with various electrophiles to give the corresponding 4-substituted 3-methoxy-5-pivaloylaminopyridines. The conversion of the 5-pivaloylamo group to other substituents via the pyridyl radical was also examined  
IT 77903-30-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 77903-30-1 CAPLUS  
CN Pyridine, 3-methoxy-4-methyl-5-(phenylseleno)- (9CI) (CA INDEX NAME)



AN 1997:745323 CAPLUS  
 DN 128:34826  
 TI Reactions of 2,5-dihydro-2,5-dimethoxyfuran with phenylselenenyl chloride: regio- and stereocontrolled generation of highly functionalized C4 building-blocks  
 AU D'Onofrio, Franco; Margarita, Roberto; Parlanti, Luca; Pernazza, Daniele; Piancatelli, Giovanni  
 CS Dip. Chim. Cent. CNR Stud. Chim. Sostanze Organiche Naturali, Univ. "La Sapienza", Rome, 00185, Italy  
 SO Tetrahedron (1997), 53(46), 15843-15852  
 CODEN: TETRAB; ISSN: 0040-4020  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 OS CASREACT 128:34826  
 GI

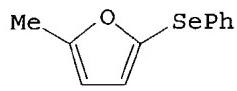


AB An efficient protocol for stereo- and regiocontrolled synthesis of small polyfunctional mols. is presented. The stereospecific addition of PhSeCl to 2,5-dihydro-2,5-dimethoxyfuran in solvents, such as CH<sub>2</sub>Cl<sub>2</sub> and MeOH, gives cyclic and linear acetals I and (2S\*,3R\*)-(MeO)<sub>2</sub>CHCHClCH(SePh)CH(OMe)<sub>2</sub>, depending on the solvent used. Emphasis is given to the regiocontrolled hydrolysis of acetal groups for the preparation of stereodefined and highly functionalized C4 synthons, such as (2S\*,3S\*)-(MeO)<sub>2</sub>CHCHClCH(SePh)CHO, (E)-(MeO)2CHCH:C(SePh)CHO, and (Z)-(MeO)2CHC(SePh):CHCHO.  
 IT 199535-77-8P, 2-Methyl-3-(phenylseleno)furan  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 199535-77-8 CAPLUS  
 CN Furan, 2-methyl-3-(phenylseleno)- (9CI) (CA INDEX NAME)

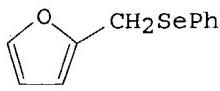


RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

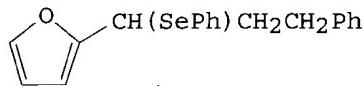
L18 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1987:32738 CAPLUS  
 DN 106:32738  
 TI Oxidation of some furanoselenium compounds  
 AU Pennanen, Seppo I.  
 CS Dep. Chem., Univ. Kuopio, Kuopio, 70211/21, Finland  
 SO Synthetic Communications (1986), 16(8), 877-82  
 CODEN: SYNCV; ISSN: 0039-7911  
 DT Journal  
 LA English  
 OS CASREACT 106:32738  
 GI



I



II



III

AB The title compds. I, II, and III were oxidized with H<sub>2</sub>O<sub>2</sub> and the products were identified. I gave 74% 5-methyl-2-furanone. II gave unstable 2-methylene-3-hydroxy-2,3-dihydrofuran which rapidly isomerized to furfuryl alc. III gave 2-(3-phenyl-1-propenyl)furan and another unstable compound which rapidly rearranged to 2-(1-hydroxy-3-phenylpropyl)furan.

IT 106154-32-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and oxidation of)

RN 106154-32-9 CAPLUS

CN Furan, 2-methyl-5-(phenylseleno)- (9CI) (CA INDEX NAME)

